Remarks

A new Sequence Listing paper copy and computer disk are filed herewith to correct informalities in the previously filed Sequence Listing. The specification has been amended herein to correct typographical errors in certain DNA sequences. New Table IV amends Tp1 (SEQ ID NO: 103), Tp2 (SEQ ID NO: 104), Tp4 (SEQ ID NO: 106), Tp5 (SEQ ID NO: 107), and Tp6 (SEQ ID NO: 108). Also amended is Table XI - Tp2 DNA sequence (SEQ ID NOs. 16 and 36). Basis for the changes is as follows. Please note that all references to nucleotide bases are from 5' to 3'.

In the last base in the first codon of the anti-sense strand of the double stranded DNA sequence shown in Table XI was modified from a "t" to "g." This changes the codon from act , the anti-sense of a stop codon, to acg, the anti-sense of the codon tgc which encodes cytseine, the amino acid indicated to be encoded in table XI. No new matter is implicated by this change as the anti-sense codon has been conformed to be complementary to the proper codon of the sense strand to encode the amino acid sequence indicated in the table. This change to the anti-sense strand codon relating to the specified cys residue of Table XI has also been made to the corresponding codon in the Tp2 sequence seen in Table III (i.e., tca to gca).

The middle base in what is the sense strand for codon 127 encoding gly (within the sequence pro-gly-val) of the double stranded DNA sequence of Table XI has been changed from "a" to "g." Thus, the codon gaa has been changed to gga to properly encode the indicated amino acid glycine. Support for the gly residue at position 127 in Table XI is found in the specification at page 49, lines 13-16 (citing to Suemeri et al., PNAS 88:11017-11021, 1991 for the sequence of TpS2) and by Suemeri et al., Fig. 3 (copy attached as Exhibit 1), which shows a gly in the same position for TpS2. No new matter is implicated by this change as the encoding DNA sequence has been conformed to the amino acid sequence of the table. The anti-sense strand codon that corresponds to this change also has been changed from ctt to cct. No new matter is added as this change is predicted by Watson-Crick base pairing to the sequence of the sense strand. These changes to the sense and anti-sense strand codons relating to the specified gly

residue of Table XI have also been made to the corresponding codons in the Tp1 and Tp4 sequences, respectively, as seen in Table IV.

The codon for the C- terminal most phe of the double stranded DNA sequence of Table XI has been changed from "ccg" (pro) to "ttt" (phe). Thus, the codon ccg has been changed to ttt to properly encode the indicated amino acid phenylalanine (phe). Support for the C-terminal most phe in Table X is found in the specification at page 49, lines 13-156 (citing to Suemeri et al., PNAS 88:11017-11021, 1991 for the sequence of TpS2) and by Suemeri et al., Fig. 3 (copy attached as Exhbit 1), which shows a phe at the end of the sequence for TpS2. No new matter is implicated by this change as the encoding DNA sequence has been conformed to the amino acid sequence of the table. The anti-sense strand codon that corresponds to this change also has been changed from cgg to aaa. No new matter is added as this change is predicted by Watson-Crick base pairing to the sequence of the sense strand. These changes to the sense and anti-sense strand codons relating to the specified phe residue of Table XI have also been made to the corresponding codons in the Tp3 and Tp6 sequences, respectively, as seen in Table IV.

The new Sequence Listing paper copy and computer disk reflect the sequence changes discussed above. Thus, the amendments to the specification raise no issue of new matter.

Respectfully submitted,

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